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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,159	06/08/2001	David M. Baggett	09765-011002	1014

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BOSTON, MA 02110

EXAMINER
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MOONEYHAM, JANICE A

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/877,159

Applicant(s)

BAGGETT, DAVID M.

Examiner

Jan Mooneyham

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 52-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 and 52-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: 105 requirement.

Art Unit: 3629

### **DETAILED ACTION**

1. This is in response to the applicant's communication filed on October 6, 2003, wherein:  
Claims 1-46 and 52-55 are currently pending;  
Claims 1, 14, 22, 35, 43 and 52 are currently amended.  
Claims 47-51 were cancelled in a previous response.

#### ***Response to Amendment***

2. The amendment filed on October 6, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Claims 14, 35, 43, and 52 claim *tangibly* storing the constructed fares. The term *tangibly* is new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

#### ***Claim Objections***

3. Claims 1, 8, 12, 14, 35, 43, 52 objected to because of the following informalities:  
Claims 1, 14, 35, 43 and 52 read tangibly storing the constructed fares *for use in for use* in a travel related activity.  
Claim 8 needs to be correctly punctuated.  
Claim 12, the word gateways should be in the singular.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 14 and 52 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claims 14 and 52 only recite an abstract idea. The recited steps of merely preprocessing by determining interior cities, searching for gateway cities, producing the constructed fare by applying arbitraries and storing the fares does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to construct fares.

As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble.

Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. The applicant has failed to include technology in the body of the claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-46 and 52-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Gardner et al (US 2002/0178034) (hereinafter referred to as Gardner) in view of applicant's remarks on page 1 of the specification wherein the applicant states that the fare construction process solves the problem by providing a mechanism to extend a published fare with add-ons , also called arbitraries, in order to derive prices to minor cities.

Art Unit: 3629

Gardner discloses a method and medium for producing a constructed fare that include an arbitrary (fare) added to a published fare, said method executed in a computer system having memory and a persistent storage, the method comprising:

per-processing by:

determining interior (minor) cities that appear with gateway (major, HUB) cities in arbitraries (add-ons fares) for an airline, the arbitraries (add-on fares) being published amounts that extend published fares and which cannot be used alone to produce a fare (page 1 of the specification, Figure 7 or Gardner, Unpublished Fare Retrieval, Published Fare Retrieval, page 7, [0093-0102}); and

searching a database having published fares for gateway (major, HUB) cities corresponding to the determine interior (minor) cities appearing in the arbitraries (add-on fares) (Gardner Figure 7b – 8a, page 7 [0095-0097]); and

producing the constructed fare (Fig. 8a), page 7 [0097), by:

applying an arbitrary (add-on fare) corresponding to one of the interior (minor) cities to a published fare involving one of the gateway (major, HUB) cities that corresponds to the determined interior (minor) cities appearing in the arbitraries (add-on fares) to produce a constructed fare (page 7 [0095-0098]); and

storing the constructed fare in memory or the persistent storage device of the computer system for use in a travel related activity (pages 7 and 8, [0093-0104], Fig. 8a).

Gardner discloses a method for producing a constructed fare that include an arbitrary (fare) added to a published fare, said method executed in a computer system having memory and a persistent storage, the method comprising:

per-processing by:

accessing a first hash table by airline interior city pair to return a list of gateway cities for which an airline has arbitraries that specify the interior city, with arbitraries being published amounts being published amounts that extend published fares and which cannot be used alone to produce a fare (Fig. 7b); and

accessing a second hash table by airline gateway pair to return a second list of gateway cities that an airline publishes fares from to determine a gateway to another gateway city (Fig. 7b):

producing the fares, by:

applying the first arbitraries from the first hash table to the published fares from the second hash table to return a list of potential constructed fares (page 7 [0093] thru page 8 [0104]); and

determining whether a constructed fare in a list of constructed fares is a valid constructed fare and for valid ones of the potential constructed fares producing the constructed fares (page 7 [0093] thru page 8 [0104]; and

tangibly storing the constructed fare use in a travel related activity (Fig. 8a).

Gardner further discloses a method and medium wherein determining the interior cities comprises:

accessing a hash table indexed by an airline, interior-city pair to return a list of gateway cities for which an airline has arbitraries (add-on fares) that specify the interior city (Fig. 7b and page 7 [0093] thru page 8 [0104]).

Gardner discloses a method and medium wherein accessing a hash table returns the list in constant time (Fig. 7b-8a).

Gardner discloses a method and medium wherein searching for gateway cities comprises:  
accessing a hash table indexed by an airline, gateway pair to return a list of gateway cities that an airline publishes fares from the determined gateway to another gateway city (Figure 7b and page 7 [0093] thru page 8 [0104]).

Gardner discloses the method and medium wherein determining interior cities comprises:  
accessing a first hash table indexed by an airline, interior-city pair to return a list of gateway cities for which an airline has arbitraries that specify the interior city; and wherein searching for gateway cities further comprises:

accessing a second hash table indexed by an airline, gateway pair to return a second list of gateway cities that an airline publishes fares from the determined gateway to another gateway city (Fig. 7b, pages 7 thru 8 [0093-0104]).

Gardner discloses a method and medium wherein accessing the first and second hash table returns the list in constant time (Fig. 7b and page 7 [0093] thru page 8 [0104]).



Gardner discloses a method and medium wherein applying arbitraries further comprises:  
evaluating or testing records from fare construction tables to determine whether the  
constructed fare is a valid constructed fare (page 7 [0093] thru page 8 [0104]).

Gardner discloses a method and medium wherein the method is conditioned to allow any  
one or more of an airline code, interior city, a first gateway city, a second gateway city, or fare-  
base to vary ( pages 7 thru 8).

Gardner discloses a method and medium wherein testing entries further comprises:  
determining if an entry in a construction table was memorized before accessing the construction  
table; and  
if the entry was memorized, retrieving an answer for a store of memorized entries to apply to the  
constructed fare (Fig. 8a (retrieve fare component)).

Gardner discloses a method and medium wherein the constructed fare is a two component  
constructed fare (page 7 [0101]).

Gardner discloses a method further comprising:  
determining a second set of interior cities that appear with a second gateway city in the  
published fare for the airline (Fig. 7a, Fig. 8a);

Art Unit: 3629

applying an arbitrary that extends the published fare to a city from the second set of interior cities to produce a three component constructed fare (Fig. 7a, Fig. 8a, pages 7 and 8).

Gardner discloses a method and medium wherein the method is performed over all determined interior cities and all gateway cities that correspond to the determine interior cities appearing in the arbitraries to produce plural constructed fares (pages 7 and 8).

Gardner discloses a method and medium wherein the method is performed over all airlines (Figs. 1-3 and 7b-8a).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-46 and 52-55 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The office action has an attached requirement for information under 37 CFR § 1.105. A complete response to this Office Action must include a complete response to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan Mooneyham whose telephone number is (703) 305-8554.

The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (703) 308-2702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM

***Requirement for Information under 37 CFR 1.105***

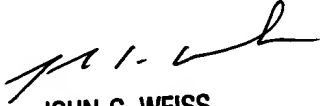
1. Applicant and any assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.
2. The specification describes documents from the ATPCO dealing with fare construction. The applicant has provided documents from 2001 and 1994 and 1992. The Examiner has reason to believe that there are documents between 1994 and 2001 of this same nature and the Examiner requires the applicant to provide any and all of these publications between the years 1994 and 2001 of which the applicant is aware. It is required the applicant point out the improvements made in the present invention.
3. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of the requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97 where appropriate.
4. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the

Art Unit: 3629

requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure. In response to this requirement, please provide a list of keywords that are particularly helpful in locating publications related to the disclosed art.

5. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

6. This requirement is subject to the provisions of 37 CFR 1.134, 1.135 and 1.136 and has a shortened statutory period of 2 months. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

  
JOHN G. WEISS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600